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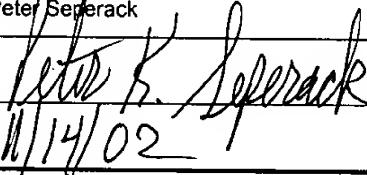
TRANSMITTAL FORM

(This form may be used for all correspondence after initial filing)

Application Number	09/526,106
Filing Date	March 15, 2000
First Named Inventor	Robert F. Balint
Group Art Unit	1627
Examiner Name	Tomas Friend
Total Number of Pages in This Submission	Attorney Docket Number
	021167-000700US

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers <i>(for an Application)</i>	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment / Reply	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group <i>(Appeal Notice, Brief, Reply Brief)</i>
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) <i>(please identify below):</i>
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	Return Postcard
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	Statement Under 37 CFR 3.73(b) and copies of chain of title
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s)	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		
	Remarks	The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm and Individual name	Townsend and Townsend and Crew LLP Peter Seperack	
Signature		
Date	11/14/02	

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on this date:

November 15, 2002

Typed or printed name	Carol Mendel		
Signature		Date	November 15, 2002

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SF 1405535 v1

1627

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PTO/SB/82 (10-00)

Approved for use through 10/31/2002. OMB 0651-0035
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**REVOCATION OF POWER OF
ATTORNEY OR
AUTHORIZATION OF AGENT**

Application Number	09/526,106
Filing Date	March 15, 2000
First Named Inventor	Robert F. Balint
Group Art Unit	1627
Examiner Name	Tomas Friend
Attorney Docket Number	021167-000700US

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1600/2900

I hereby revoke all previous powers of attorney or authorizations of agent given in the above-identified application:

A Power of Attorney or Authorization of Agent is submitted herewith.

OR

Please change the correspondence address for the above-identified application to:

Customer Number



OR

<input type="checkbox"/> Firm or Individual Name			
Address			
Address			
City			
Country	State	ZIP	
Telephone	Fax		

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.

Certificate under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

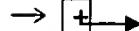
Name	Mark Alfenito
Signature	
Date	10/31/02

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

*Total of _____ forms are submitted.

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SF 1394541 v1

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PTO/SB/81 (02-01)

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**POWER OF ATTORNEY OR
AUTHORIZATION OF AGENT**

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POWER OF ATTORNEY OR AUTHORIZATION OF AGENT	Application Number	09/526,106
	Filing Date	March 15, 2000
	First Named Inventor	Robert F. Balint
	Title	INTERACTION-ACTIVATED PROTEINS
	Group Art Unit	1627
	Examiner Name	Tomas Friend
Attorney Docket Number	021167-000700	

I hereby appoint:

Practitioners at Customer Number



OR

Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

The above-mentioned Customer Number.

OR

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Country

Telephone

Fax

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

SIGNATURE of Applicant or Assignee of Record

Name Mark Alfenito

Signature

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

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SF 1394531 v1



PTO/SB/96 (08-00)

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Attorney Docket No. 021167-000700US

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: KaloBios, Inc.

Application No./Patent No.: 09/526,106

Filed/Issue Date: March 15, 2000

Entitled: INTERACTION-ACTIVATED PROTEINS

KaloBios, Inc., a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. the assignee of the entire right, title, and interest; or
2. an assignee of less than the entire right, title and interest.
The extent (by, percentage) of its ownership interest is _____ %

in the patent application/patent identified above by virtue of either:

- A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

OR

- B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: Robert F. Balint; Jeng-Hong Her To :Panorama Research, Inc.

The document was recorded in the United States Patent and Trademark Office at Reel 011001, Frame 0582, or for which a copy thereof is attached.

2. From: Panorama Research, Inc. To :Horizon Biotechnologies, Inc.

The document was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: Horizon Biotechnologies, Inc. To :KaloBios, Inc.

The document was recorded in the United States Patent and Trademark Office at Reel 012873, Frame 0491, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet.

Copies of assignments or other documents in the chain of title are attached.

[NOTE] A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

10/31/02

Date

Mark Alfenito

Typed or printed name

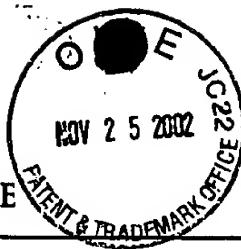
Signature

President

Title

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UNITED STATES PATENT AND TRADEMARK OFFICE
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THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/29/2002

REEL/FRAME: 012873/0491
NUMBER OF PAGES: 18

BRIEF: CHANGE OF NAME (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HORIZON BIOTECHNOLOGIES, INC.

DOC DATE: 01/22/2002

ASSIGNEE:

KALOBIOS, INC.
2462 WYANDOTTE ST.
MOUNTAIN VIEW, CALIFORNIA 94043

SERIAL NUMBER: 09526106
PATENT NUMBER:

FILING DATE: 03/15/2000
ISSUE DATE:

SERIAL NUMBER: 09764163
PATENT NUMBER:

FILING DATE: 01/16/2001
ISSUE DATE:

SERIAL NUMBER: 09510097
PATENT NUMBER:

FILING DATE: 02/22/2000
ISSUE DATE:

SERIAL NUMBER:
PATENT NUMBER:
PCT NUMBER: US0007108

FILING DATE:
ISSUE DATE:

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R.B.

012873/0491 PAGE 2

SERIAL NUMBER:
PATENT NUMBER:
PCT NUMBER: US0101651

FILING DATE:
ISSUE DATE:

SERIAL NUMBER:
PATENT NUMBER:
PCT NUMBER: US0008477

FILING DATE:
ISSUE DATE:

SHARON LATIMER, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

RE

05-13-2002

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Horizon Biotechnologies, Inc.

4-29-02

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

- Assignment Merger
 Security Agreement Change of Name
 Other _____

Execution Date: January 22, 2002

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

09/526,106; 09/764,163; 09/510,097;

PCT/US00/07108; PCT/US01/01651;

PCT/US00/08477

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Cooley Godward LLP

Internal Address: Patent Group

Street Address: Five Palo Alto Square

3000 El Camino Real

City: Palo Alto State: CA Zip: 94306-2155

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41) \$240.00

 Enclosed Authorized to be charged to deposit account

8. Deposit account number: 03-3117

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Ann M. Caviani Pease (42,067)

Name of Person Signing

Signature

4/29/02

Date

Total number of pages including cover sheet, attachments, and documents: [18]

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments
Washington, D.C. 20231Express Mail Label Number: EL 514 038 530 US
Date of Deposit: April 29, 2002

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, Washington, DC 20231.

Date: 29 APRIL 2002

By:

Vladimir Skliba

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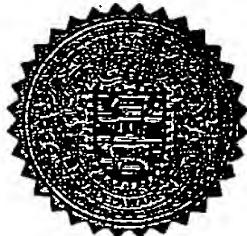
The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "HORIZON BIOTECHNOLOGIES, INC.", CHANGING ITS NAME FROM "HORIZON BIOTECHNOLOGIES, INC." TO "KALOBIOS, INC.", FILED IN THIS OFFICE ON THE TWENTY-SECOND DAY OF JANUARY, A.D. 2002, AT 9 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE KENT COUNTY RECORDER OF DEEDS.

3437218 8100

020041697



Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 1571401

DATE: 01-22-02

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
HORIZON BIOTECHNOLOGIES, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Horizon Biotechnologies, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law"),

DOES HEREBY CERTIFY:

FIRST: That the name of this corporation is Horizon Biotechnologies, Inc. and that this corporation was originally incorporated pursuant to the General Corporation Law on September 19, 2001 under the name Horizon Biotechnologies, Inc.

SECOND: That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety as follows:

ARTICLE I

The name of this corporation is KaloBios, Inc.

ARTICLE II

The address of the registered office of this corporation in the State of Delaware is 15 East North Street, in the City of Dover, County of Kent. The name of its registered agent at such address is Incorporating Services, Ltd.

ARTICLE III

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.

ARTICLE IV

A. Classes of Stock. This corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number

of shares that this corporation is authorized to issue is Seventeen Million (17,000,000) shares. Ten Million (10,000,000) shares shall be Common Stock and Seven Million (7,000,000) shares shall be Preferred Stock, both at the par value of \$.001 per share.

B. Rights, Preferences and Restrictions of Preferred Stock. The Preferred Stock authorized by these Amended and Restated Articles of Incorporation may be issued from time to time in one or more series. The rights, preferences, privileges, and restrictions granted to and imposed on the Series A Preferred Stock, which series shall consist of Four Million (4,000,000) shares (the "Series A Preferred Stock"), and the Series A-1 Preferred Stock, which series shall consist of Three Million (3,000,000) shares (the "Series A-1 Preferred Stock") are as set forth below in this Article IV(B).

1. Dividend Provisions.

(a) The holders of shares of Preferred Stock shall be entitled to receive cumulative dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this corporation) on the Common Stock of this corporation, at the rate of (i) \$0.086 per share per annum for the Series A Preferred Stock (as adjusted for any stock splits, stock dividends, recapitalizations or the like) and (ii) \$0.180 per share per annum for the Series A-1 Preferred Stock (as adjusted for any stock splits, stock dividends, recapitalizations or the like), payable when, as and if declared by the Board of Directors. Dividends shall accrue if unpaid from and after July 11, 2001. Such dividends shall be cumulative so that, if such dividends in respect of any previous or current annual dividend period, at the annual rate specified above, shall not have been paid, the deficiency shall first be fully paid before any dividend or other distribution shall be paid on or declared and set apart for the Common Stock. Cumulative dividends with respect to a share of Series A Preferred Stock or Series A-1 Preferred Stock which are accrued, payable and/or in arrears shall, upon conversion of such share to Common Stock, not be paid in cash but shall result in an adjustment of the Conversion Price for such share as set forth in subsection 4(d)(v). The holders of the outstanding Preferred Stock can waive any dividend preference that such holders shall be entitled to receive under this Section 1 upon the affirmative vote or written consent of the holders of at least a sixty-six and two-thirds percent (66 $\frac{2}{3}\%$) of the Preferred Stock then outstanding.

(b) In the event this corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this corporation or other persons, assets or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Series A Preferred Stock and Series A-1 Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Series A Preferred Stock and Series A-1 Preferred Stock were the holders of the number of shares of Common Stock of this corporation into which their respective shares of Series A Preferred Stock and Series A-1 Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of this corporation entitled to receive such distribution.

2. Liquidation Preference.

(a) In the event of any liquidation, dissolution or winding up of this corporation, either voluntary or involuntary, the holders of Series A Preferred Stock and Series A-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of this corporation to the holders of Common Stock by reason of their ownership thereof, in the case of the Series A Preferred Stock, an amount per share equal to (i) the sum of \$0.96 for each outstanding share of Series A Preferred Stock plus accrued or declared but unpaid dividends on such share (subject to adjustment of such fixed dollar amounts for any stock splits, stock dividends, combinations, recapitalizations or the like) and, in the case of the Series A-1 Preferred Stock, an amount per share equal to (ii) the sum of \$2.00 for each outstanding share of Series A-1 Preferred Stock plus accrued or declared but unpaid dividends on such share (subject to adjustment of such fixed dollar amounts for any stock splits, stock dividends, contributions, recapitalizations or the like). If upon the occurrence of such event, the assets and funds thus distributed among the holders of the Series A Preferred Stock and Series A-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire assets and funds of this corporation legally available for distribution shall be distributed ratably among the holders of the Series A Preferred Stock and Series A-1 Preferred Stock in proportion to the full preferential amount each such holder is otherwise entitled to receive under this subsection (a).

(b) Upon the completion of the distribution required by subsection (a) of this Section 2, the entire remaining assets and funds of this corporation available for distribution to shareholders shall be distributed among the holders of the Preferred Stock and Common Stock pro rata based on the number of shares of Common Stock held by each (assuming full conversion of all such Preferred Stock).

(c) (i) For purposes of this Section 2, a liquidation, dissolution or winding up of this corporation shall be deemed to be occasioned by, or to include, (A) the acquisition of this corporation by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, stock purchase, merger or consolidation) that results in the transfer of forty-nine percent (49%) or more of the outstanding voting power of this corporation; or (B) a sale of all or substantially all of the assets of this corporation or of any successor corporation's assets to any other entity by means of any transaction or series of related transactions.

(ii) In any of such events, if the consideration received by this corporation is other than cash, its value will be deemed its fair market value. Any securities shall be valued as follows:

(A) Securities not subject to investment letter or other similar restrictions on free marketability covered by (B) below:

(1) If traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such exchange or system over the thirty (30) trading day period ending three (3) trading days prior to the closing;

(2) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) trading day period ending three (3) trading days prior to the closing; and

(3) If there is no active public market, the value shall be the fair market value thereof, mutually as determined in good faith by this corporation's Board of Directors and the holders of at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all then outstanding shares of Preferred Stock.

(B) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a shareholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in (A) (1), (2) or (3) to reflect the approximate fair market value thereof, as mutually determined by this corporation and the holders of at least a majority of the voting power of all then outstanding shares of such Preferred Stock.

(iii) In the event the requirements of this subsection 2(c) are not complied with, this corporation shall forthwith either:

(A) cause such closing to be postponed until such time as the requirements of this Section 2 have been complied with; or

(B) cancel such transaction, in which event the rights, preferences and privileges of the holders of the Preferred Stock shall revert to and be the same as such rights, preferences and privileges existing immediately prior to the date of the first notice referred to in subsection 2(c)(iv) hereof.

(iv) This corporation shall give each holder of record of Preferred Stock written notice of such impending transaction not later than twenty (20) days prior to the shareholders' meeting called to approve such transaction, or twenty (20) days prior to the closing of such transaction, whichever is earlier, and shall also notify such holders in writing of the final approval of such transaction. The first of such notices shall describe the material terms and conditions of the impending transaction and the provisions of this Section 2, and this corporation shall thereafter give such holders prompt notice of any material changes. The transaction shall in no event take place sooner than twenty (20) days after this corporation has given the first notice provided for herein or sooner than ten (10) days after this corporation has given notice of any material changes provided for herein; provided, however, that such periods may be shortened upon the written consent of the holders of Preferred Stock that are entitled to such notice rights or similar notice rights and that represent at least sixty-six and two-thirds percent (66 2/3%) of the voting power of all then outstanding shares of such Preferred Stock.

3. Redemption. The Preferred Stock is not redeemable.

4. Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office

of this corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing \$0.48 (the "Original Series A Issue Price") or \$1.00 (the "Original Series A-1 Issue Price") as applicable, by the Conversion Price applicable to such share, determined as hereafter provided, in effect on the date the certificate is surrendered for conversion. The initial Conversion Price per share for shares of Series A Preferred Stock shall be the Original Series A Issue Price and the initial Conversion Price per share for shares of Series A-1 Preferred Stock shall be the Original Series A-1 Issue Price; provided, however, that the respective Conversion Prices for the Preferred Stock shall be subject to adjustment as set forth in subsection 4(d).

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into shares of Common Stock at the Conversion Price at the time in effect for such Preferred Stock immediately upon the earlier of (i) except as provided below in Section 4(c), this corporation's sale of its Common Stock in a firm commitment underwritten public offering pursuant to a registration statement on Form S-1 or successor form filed under the Securities Act of 1933, as amended, the public offering price of which was not less than \$4.55 per share (as adjusted for any stock splits, stock dividends, recapitalizations or the like) and aggregate proceeds of at least \$30,000,000 or (ii) the date specified by written consent or agreement of the holders of not less than sixty-six and two-thirds percent (66 $\frac{2}{3}\%$) of the then outstanding shares of Preferred Stock.

(c) Mechanics of Conversion. Before any holder of Preferred Stock shall be entitled to convert the same into shares of Common Stock, he or she shall surrender the certificate or certificates therefor, duly endorsed, at the office of this corporation or of any transfer agent for the Preferred Stock, and shall give written notice to this corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. This corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the persons entitled to receive the Common Stock upon conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities.

(d) Conversion Price Adjustments of Preferred Stock for Certain Dilutive Issuances, Splits and Combinations. The Conversion Price of the Preferred Stock shall be subject to adjustment from time to time as follows:

(i) (A) If this corporation shall issue, after the date upon which any shares of Preferred Stock were first issued (the "Purchase Date"), any Additional Stock (as

defined below) without consideration or for a consideration per share less than the Conversion Price for such series in effect immediately prior to the issuance of such Additional Stock, the Conversion Price for such series in effect immediately prior to each such issuance shall forthwith (except as otherwise provided in this clause (i)) be adjusted to a price determined by multiplying such Conversion Price by a fraction, (i) the numerator of which shall be (A) the number of shares of Common Stock into which all outstanding shares of Preferred Stock are convertible immediately prior to such issuance plus (B) the number of shares of Common Stock which the aggregate consideration received by this corporation for such issuance would purchase at such Conversion Price, and (ii) the denominator of which shall be the number of shares of Common Stock into which all outstanding shares of Preferred Stock are convertible immediately prior to such issuance plus the total number of shares of such Additional Stock. For the purposes of the preceding sentence, the number of shares of Common Stock into which all outstanding shares of Preferred Stock are convertible as of a given date shall be the number of shares of Common Stock into which the then outstanding shares of Preferred Stock could be converted if fully converted on the day immediately preceding the given date and shall exclude all other shares of Common Stock and any securities convertible or exchangeable for shares of Common Stock and Preferred Stock.

(B) No adjustment of the Conversion Price for the Preferred Stock shall be made in an amount less than one cent per share, provided that any adjustments that are not required to be made by reason of this sentence shall be carried forward and shall be either taken into account in any subsequent adjustment made prior to three (3) years from the date of the event giving rise to the adjustment being carried forward, or shall be made at the end of three (3) years from the date of the event giving rise to the adjustment being carried forward. Except to the limited extent provided for in subsections (E)(3) and (E)(4), no adjustment of such Conversion Price pursuant to this subsection 4(d)(i) shall have the effect of increasing the Conversion Price above the Conversion Price in effect immediately prior to such adjustment.

(C) In the case of the issuance of Common Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by this corporation for any underwriting or otherwise in connection with the issuance and sale thereof.

(D) In the case of the issuance of the Common Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair value thereof as determined in good faith by the Board of Directors irrespective of any accounting treatment.

(E) In the case of the issuance (whether before, on or after the applicable Purchase Date) of options to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exchangeable securities, the following provisions shall apply for all purposes of this subsection 4(d)(i) and subsection 4(d)(ii):

(1) The aggregate maximum number of shares of Common Stock deliverable upon exercise of such options to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options or rights were

issued and for a consideration equal to the consideration (determined in the manner provided in subsections 4(d)(i)(C) and (d)(i)(D)), if any, received by this corporation upon the issuance of such options or rights plus the minimum exercise price provided in such options or rights for the Common Stock covered thereby.

(2) The aggregate maximum number of shares of Common Stock deliverable upon conversion of, or in exchange for, any such convertible or exchangeable securities or upon the exercise of options to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof shall be deemed to have been issued at the time such securities were issued or such options or rights were issued and for a consideration equal to the consideration, if any, received by this corporation for any such securities and related options or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the minimum additional consideration, if any, to be received by this corporation upon the conversion or exchange of such securities or the exercise of any related options or rights (the consideration in each case to be determined in the manner provided in subsections 4(d)(i)(C) and (d)(i)(D)).

(3) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to this corporation upon exercise of such options or rights or upon conversion of or in exchange for such convertible or exchangeable securities, including, but not limited to, a change resulting from the antidilution provisions thereof the Conversion Price of the Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

(4) Upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the Conversion Price of the Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities or options or rights related to such securities shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and convertible or exchangeable securities that remain in effect) actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities.

(5) The number of shares of Common Stock deemed issued and the consideration deemed paid therefor pursuant to subsections 4(d)(i)(E)(1) and (2) shall be appropriately adjusted to reflect any change, termination or expiration of the type described in either subsection 4(d)(i)(E)(3) or (4).

(ii) "Additional Stock" shall mean any shares of Common Stock issued (or deemed to have been issued pursuant to subsection 4(d)(i)(E)) by this corporation after the Purchase Date other than:

(A) Common Stock issued pursuant to a transaction described in subsection 4(d)(iii) hereof;

(B) Shares of Common Stock (excluding shares repurchased by this corporation in connection with the termination of service) issuable or issued to employees, consultants, or directors (if in transactions with primarily non-financing purposes) of this corporation pursuant to a stock option plan, performance bonus plan or restricted stock plan approved by the Board of Directors of this corporation at any time when the total number of shares of Common Stock so issuable or issued (and not repurchased at cost by the corporation in connection with the termination of employment) does not exceed 1,400,000 or such higher number approved by at least two-thirds (66 $\frac{2}{3}$ %) of the Board of Directors of the corporation;

(C) Shares of Common Stock (i) issuable or issued to customers or vendors (if in transactions with primarily non-financing purposes) of this corporation, financial institutions or lessors in connection with commercial credit arrangements, equipment financings or similar transactions, and (ii) approved and deemed not to be "Additional Stock" by the Board of Directors of the corporation;

(D) Shares of Common Stock and Preferred Stock issuable or issued upon exercise of warrants outstanding as of the Purchase Date;

(E) Shares of Common Stock and Preferred Stock issuable or issued upon exercise of warrants issued in connection with the Series A-1 Preferred Stock;

(F) Up to 170,000 shares of Common Stock issuable or issued for licenses necessary to this corporation's technology pursuant to the Patent Bonus Program as approved by the Board of Directors; or

(G) Common Stock issuable upon conversion of Preferred Stock.

(iii) In the event this corporation should at any time or from time to time after the Purchase Date fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "Common Stock Equivalents") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Price of the Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase of the aggregate of shares of Common Stock outstanding and those issuable with respect to such Common Stock Equivalents.

(iv) If the number of shares of Common Stock outstanding at any time after the Purchase Date is decreased by a combination of the outstanding shares of Common

Stock, then, following the record date of such combination, the Conversion Price for the Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in outstanding shares.

(v) In the event any share of Preferred Stock converts to Common Stock, then upon such conversion, the Conversion Price of the Preferred Stock shall be decreased by subtracting an amount equal to the total amount of cumulative dividends with respect to such share which are accrued, payable and/or in arrears as set forth in subsection 1(a).

(e) Other Distributions. In the event this corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in subsection 4(d)(iii), then, in each such case for the purpose of this subsection 4(e), the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of this corporation into which their shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of this corporation entitled to receive such distribution.

(f) Recapitalizations. If at any time or from time to time there shall be a recapitalization of the Common Stock (other than a subdivision, combination or merger or sale of assets transaction provided for elsewhere in this Section 4 or Section 2) provision shall be made so that the holders of the Preferred Stock shall thereafter be entitled to receive upon conversion of the Preferred Stock the number of shares of stock or other securities or property of the Corporation or otherwise, to which a holder of Common Stock deliverable upon conversion would have been entitled on such recapitalization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of the Preferred Stock after the recapitalization to the end that the provisions of this Section 4 (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of the Preferred Stock) shall be applicable after that event as nearly equivalent as may be practicable.

(g) No Impairment. This corporation will not, by amendment of its Articles of Incorporation or through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by this corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of the Preferred Stock against impairment.

(h) No Fractional Shares and Certificate as to Adjustments.

(i) No fractional shares shall be issued upon conversion of the Preferred Stock. Whether or not fractional shares are issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting

into Common Stock and the number of shares of Common Stock issuable upon such aggregate conversion. If the conversion would result in any fractional share, this corporation shall, in lieu of issuing any fractional share, pay the holder an amount in cash equal to the fair market value of such fractional share on the date of conversion, as determined in good faith by the Board of Directors.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of the Preferred Stock pursuant to this Section 4, this corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. This corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price for such series of Preferred Stock at the time in effect, and (C) the number of shares of Common Stock and the amount, if any, of other property that at the time would be received upon the conversion of a share of Preferred Stock.

(i) Notices of Record Date. In the event of any taking by this corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right, this corporation shall mail to each holder of Preferred Stock, at least twenty (20) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend, distribution or right.

(j) Reservation of Stock Issuable Upon Conversion. This corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, in addition to such other remedies as shall be available to the holder of such Preferred Stock, this corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite shareholder approval of any necessary amendment to these Restated Articles of Incorporation.

(k) Notices. Any notice required by the provisions of this Section 4 to be given to the holders of shares of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of this corporation.

5. Voting Rights.

(a) General Voting Rights. The holder of each share of Preferred Stock shall have the right to one vote for each share of Common Stock into which such Preferred Stock could then be converted, and with respect to such vote, such holder shall have full voting rights and powers equal to the voting rights and powers of the holders of Common Stock, and shall be entitled, notwithstanding any provision hereof, to notice of any shareholders' meeting in accordance with the bylaws of this corporation, and shall be entitled to vote, together with holders of Common Stock, with respect to any question upon which holders of Common Stock have the right to vote. Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

(b). The Board of Directors of the Corporation shall consist of the number of directors as set forth in the Bylaws.

(i) Preferred Stock. For so long as at least 400,000 shares of Series A Preferred Stock or Series A-1 Preferred Stock (or any combination thereof) shall be outstanding, the holders of Series A Preferred Stock and Series A-1 Preferred Stock shall have the right, voting together as a separate class, to elect three (3) directors to the Board of Directors.

(ii) Common Stock. The holders of Common Stock shall have the right, voting as a separate class, to elect two (2) directors to the Board of Directors.

(iii) Common Stock and Preferred Stock. For so long as the condition set forth in Section 3(b)(i) is met, the holders of Preferred Stock and the holders of the Common Stock shall have the right, voting together as a single class and, with respect to the Series A Preferred Stock or Series A-1 Preferred Stock, on an as-converted basis, to elect any remaining directors of the Corporation.

(iv) In the case of any vacancy in the office of a director occurring among the directors elected by the holders of a class or series as aforesaid or by the other directors, such vacancy shall be filled by the remaining director or directors elected by that class or series, if any, or if no such director remains, by the affirmative vote of the holders of the applicable class or series; however, if the vacant director had been chosen by the other directors, then the vacancy shall be filled by the unanimous consent of the other directors. Any director elected by the holders of a class or series of stock may be removed, either with or without cause, by and only by the affirmative vote of the holders of the shares of the class or series of stock which elected such director or directors, and any vacancy thereby created may be filled by the holder of that class or series of stock.

6. Protective Provisions.

(a) So long as at least 400,000 shares of Series A Preferred Stock or Series A-1 Preferred Stock (or any combination thereof) are outstanding, this corporation shall not without first obtaining the approval (by vote or written consent, as provided by law) of the holders of at least sixty-six and two-thirds percent ($66 \frac{2}{3}\%$) of the then outstanding shares of

Series A Preferred Stock and Series A-1 Preferred Stock (both series voting together as a single class without any other series):

(i) alter or change the rights, preferences or privileges of the shares of Preferred Stock, Series A Preferred Stock or Series A-1 Preferred Stock so as to affect adversely the shares, including, but not limited to, by amending this corporation's Amended and Restated Articles of Incorporation or Bylaws;

(ii) increase or decrease (other than by redemption or conversion) the total number of authorized shares of Common or Preferred Stock;

(iii) authorize or issue, or obligate itself to issue, any other equity security, including any other security convertible into or exercisable for any equity security having any rights, preferences or privileges on parity with or senior to the Series A Preferred Stock or Series A-1 Preferred Stock;

(iv) redeem, purchase or otherwise acquire (or pay into or set aside for a sinking fund for such purpose) any share or shares of Preferred Stock or Common Stock; provided, however, that this restriction shall not apply to the repurchase of shares of Common Stock from employees, officers, directors, consultants or other persons performing services for this corporation or any subsidiary pursuant to agreements under which this corporation has the option to repurchase such shares at cost upon the occurrence of certain events, such as the termination of employment;

(v) effect any liquidation or dissolution of the corporation;

(vi) enter into an agreement or agreements in which control of 20% or more of the voting interests of this corporation is transferred to any party or related party or parties acting in concert other than the Company (whether such acquisition is a single transaction or multiple transactions);

(vii) enter into capital equipment purchases, debt or real estate obligations that are each in excess of \$100,000;

(viii) enter this corporation into any actions resulting in a material change in the corporation's line(s) of business or enter this corporation into material business activities not contemplated in the original business plan presented to the holders of the Series A Preferred Stock and Series A-1 Preferred Stock; or

(ix) enter into a sale of all or substantially all of its assets, merger, acquisition, stock purchase, consolidation, reorganization or other transaction in which control of 49% or more the voting interests of this corporation is transferred.

7. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Section 4 hereof, the shares so converted shall be cancelled and shall not be issuable by this corporation. The Restated Certificate of Incorporation shall be appropriately amended to effect the corresponding reduction in this corporation's authorized capital stock.

C. Common Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock are as set forth below in this Article IV(C).

1. Dividend Rights. Subject to the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when and as declared by the Board of Directors, out of any assets of this corporation legally available therefor, such dividends as may be declared from time to time by the Board of Directors.

2. Liquidation Rights. Upon the liquidation, dissolution or winding up of this corporation, the assets of this corporation shall be distributed as provided in Section 2 of Division (B) of Article IV hereof.

3. Redemption. The Common Stock is not redeemable.

4. Voting Rights. The holder of each share of Common Stock shall have the right to one vote for each such share, and shall be entitled to notice of any shareholders' meeting in accordance with the bylaws of this corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of this corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

ARTICLE V

Except as otherwise provided in this Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of this corporation.

ARTICLE VI

The number of directors of this corporation shall be fixed from time to time by a bylaw or amendment thereof duly adopted by the Board of Directors or by the stockholders.

ARTICLE VII

Elections of directors need not be by written ballot unless the Bylaws of this corporation shall so provide.

ARTICLE VIII

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of this corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of this corporation.

ARTICLE IX

A director of this corporation shall, to the fullest extent permitted by the General Corporation Law as it now exists or as it may hereafter be amended, not be personally liable to this corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to this corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law, or (iv) for any transaction from which the director derived any improper personal benefit. If the General Corporation Law is amended, after approval by the stockholders of this Article, to authorize corporation action further eliminating or limiting the personal liability of directors, then the liability of a director of this corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law, as so amended.

Any amendment, repeal or modification of this Article IX, or the adoption of any provision of this Amended and Restated Certificate of Incorporation inconsistent with this Article IX, by the stockholders of this corporation shall not apply to or adversely affect any right or protection of a director of this corporation existing at the time of such amendment, repeal, modification or adoption.

ARTICLE X

This corporation reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

ARTICLE XI

To the fullest extent permitted by applicable law, this corporation is authorized to provide indemnification of (and advancement of expenses to) agents of this corporation (and any other persons to which General Corporation Law permits this corporation to provide indemnification) through bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law, subject only to limits created by applicable General Corporation Law (statutory or non-statutory), with respect to actions for breach of duty to this corporation, its stockholders, and others.

Any amendment, repeal or modification of the foregoing provisions of this Article XI shall not adversely affect any right or protection of a director, officer, agent, or other person existing at the time of, or increase the liability of any director of this corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

* * *

THIRD: The foregoing amendment and restatement was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the General Corporation Law.

FOURTH: That said amendment and restatement was duly adopted in accordance with the provisions of Section 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation has been
executed by the President and the Secretary of this corporation on this 22nd day of January, 2002.

/s/ Mark Alsenito

Mark Alsenito, President and Secretary



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

OCTOBER 04, 2000

PTAS

RAE-VENTER LAW GROUP, P.C.
BARBARA RAE-VENTER, PH.D.
P.O. BOX 60039
PALO ALTO, CA 94306



NOV 29 2002

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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

KAE-VENTER

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 08/14/2000

REEL/FRAME: 011001/0582
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

BALINT, ROBERT F.

DOC DATE: 07/17/2000

ASSIGNOR:

HER, JENG-HORNG

DOC DATE: 07/17/2000

ASSIGNEE:

PANORAMA RESEARCH, INC.
2462 WYANDOTTE STREET
MOUNTAIN VIEW, CALIFORNIA 94043

DOCKETED

10/16/00 jae

SERIAL NUMBER: 09526106
PATENT NUMBER:

FILING DATE: 03/15/2000
ISSUE DATE:

TARA WASHINGTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

PATENT
BOX ASSIGNMENT



08-21-2000



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RECORDATION FORM COVER SHEET - PATENTS ONLY

8.14.00

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<p>1. Name of conveying parties: Robert F. Balint Jeng-Horng Her</p>		<p>2. Name and address of receiving party(ies): Panorama Research, Inc. 2462 Wyandotte Street Mountain View, CA 94043</p>
<p>Additional names/addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		
<p>3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: Execution Date: July 17, 2000 </p>		
<p>4. Application number(s) or patent numbers: If this document is being filed with a new application, the execution date of the application is: A. Patent Application No.: 09/526,106 B. Patent No.(s): Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		
<p>5. Name/address of party to whom all correspondence concerning document should be mailed: Barbara Rae-Venter, Ph.D. Rae-Venter Law Group, P.C. P.O. Box 60039 Palo Alto, CA 94306 </p>		<p>6. Total number of applications/patents involved: One</p>
<p>7. Total fee (37 CFR 3.41): \$40.00 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Authorized to charge deposit account 18-0020.</p> <p>A duplicate copy of this cover sheet is attached.</p>		
<p>8. <input checked="" type="checkbox"/> Please apply any additional charges, or any credits, to our Deposit Account No. 18-0020. A duplicate copy of this cover sheet is attached.</p>		
<p>9. Statement and signature: To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</p>		
<p>Barbara Rae-Venter, Ph.D. Name of Person Signing Reg. No. 32,750</p>		<p><i>Barbara Rae-Venter</i> Signature</p>
<p><i>August 7, 2000</i> Date</p>		
<p><input checked="" type="checkbox"/> Total number of pages comprising cover sheet, attachments and document: 14</p>		

ASSIGNMENT

**WHEREAS, R bert F. Balint, residing at 4003 Scripps Avenue, Palo Alt , CA 94306
and Jeng-Horng Her, residing at 2378 Weston Drive, San Jose, CA 95130, (hereinafter
"Inventor") having invented certain new and useful improvements in:**

RECEIVED**JUL 18 2000****INTERACTION-ACTIVATED PROTEINS**

- [] and having an oath or declaration executed on even date herewith; *RAE-VENICK LAW OFFICES, PC*
[X] Attorney Docket No. PARE.002.01US filed on March 15, 2000,
and assigned Serial No. 09/526,106

WHEREAS Panorama Research, Inc., (hereinafter "Assignee") having a principal place of business at 2462 Wyandotte Street, Mountain View, CA 94043, is desirous of acquiring 100% of the right, title, and interest in and to said invention, said application, and the letters patent to be obtained therefor:

NOW THEREFORE, to all to whom it may concern, be it known that, for and in consideration of One Dollar and other good and valuable considerations, to Inventor in hand paid, the receipt and sufficiency whereof are hereby acknowledged, Inventor has sold, assigned, and set over and by these presents does hereby sell, assign, and set over unto Assignee and Assignee's legal representatives, successors and assigns, the entire right, title and interest in and to said invention, said application, continuations, continuation-in-part, divisional, reissues and reexaminations, and the letters patent, both foreign and domestic, that may or shall issue thereon; and Inventor does hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to the above-mentioned Assignee agreeably with the terms of this assignment.

TECHNOLOGY ASSIGNMENT AGREEMENT

This Agreement is effective as of March 31, 2001 (the "Effective Date") between Horizon BioTechnologies Incorporated, a California corporation (the "Company"), and Dr. Robert F. Balint, Dr. Jeng Her, Dr. James W. Lerrick, David Martinez, Dr. Yunfei Chen, Dr. Tolleiv Trimborn, Panorama Research, Inc. and PanResearch, Inc., (each individually and together deemed the "Assignor(s)"). In consideration of, and in order to induce, the Company's entering into this Agreement, each Assignor individually makes all assignments, representations, warranties, commitments and other agreements of Assignors hereunder and is jointly and severally obligated with respect to all such obligations of Assignors. Company's obligations to an Assignor run only to that Assignor individually. The assignment and stock issuance hereunder is intended to qualify for tax-free treatment under Internal Revenue Code Section 351.

1. Assignment

Assignors, both individually and collectively, hereby assign to the Company exclusively throughout the world all right, title and interest (whether or not now existing) in the (i) subject matter referred to in Exhibit A ("Technology"), (ii) all precursors, portions and work in progress with respect thereto and all inventions, works of authorship, mask works, technology, information, know-how, materials and tools relating thereto or to the development, production, use, support or maintenance thereof (iii) all copyrights, patent rights, trade secret rights, trademark rights, mask works rights, *sui generis* database rights and other intellectual property rights and all business, contract rights and goodwill in, incorporated or embodied in, used to develop or produce or use, or related to any of the foregoing (including but not limited to any such rights any Assignor may have acquired through their own efforts or under the "Intellectual Property Agreement Between the BioEngineering Group of Panorama Research, Inc. (PRI) and Pan Research, Inc. (PanRI)" dated January 25, 2000 or under any other agreement or assignment) (collectively "Intellectual Property").

2. Compensation

Subject to the terms of this Agreement, the Company agrees to provide to each Assignor either the monetary consideration or the number of shares of common stock of the Company (as constituted on the date of this Agreement) specified on the copy of such Assignor's signature page signed by Assignor. If shares of common stock of the Company are specified then such grant shall be pursuant to, and conditioned on, the provisions of a Stock Purchase Agreement of even date herewith between the Company and specific Assignor. Such shares or other consideration specified on such signature page shall be the only consideration required of the Company with respect to the subject matter of this Agreement.

3. Further Assurances; Moral Rights; Other Assignor Obligations

3.1 Each Assignor agrees to assist the Company in every proper way to evidence, record and perfect the Section 1 assignment and to apply for and obtain recordation of and from time to time secure, enforce, maintain, and defend the assigned rights. If the Company is unable for any reason whatsoever to secure any Assignor's signature to any

document requested by the Company under this Section 3.1, such Assignor hereby irrevocably designates and appoints the Company and its duly authorized officers and agents, as such Assignor's agents and attorneys-in-fact, coupled with an interest and with full power of substitution, to act for and on Assignor's behalf and instead of Assignor, to execute and file any such document or documents and to do all other lawfully permitted acts to further the purposes of the foregoing with the same legal force and effect as if executed by such Assignor.

3.2 To the extent allowed by law, Section 1 includes all rights of paternity, integrity, disclosure and withdrawal and any other rights that may be known as or referred to as "moral rights," "artist's rights," "droit moral," or the like (collectively "Moral Rights"). To the extent any Assignor retains any such Moral Rights under applicable law, such Assignor hereby ratifies and consents to, and provides all necessary ratifications and consents to, any action that may be taken with respect to such Moral Rights by or authorized by the Company; Each Assignor agrees not to assert any Moral Rights with respect thereto. Each Assignor will confirm any such ratifications, consents and agreements from time to time as requested by the Company.

3.3 Each Assignor who is named as a party in the Cancellation Agreement attached hereto as Exhibit B agrees to sign the same in connection with signing this Agreement.

3.4 Panorama Research, Inc. and PanResearch, Inc. each further agree and acknowledge that: (a) as of the Effective Date of this Agreement Dr. Robert F. Balint, Dr. Jeng Her, David Martinez, Dr. Yenfei Chen are no longer employees or consultants of either Panorama Research, Inc. or PanResearch, Inc. (if they were ever deemed to be so); (b) as of the Effective Date of this Agreement Dr. Robert F. Balint, Dr. Jeng Her, David Martinez, and Dr. Yenfei Chen are employees of the Company; (c) as of the Effective Date neither Panorama Research, Inc. nor PanResearch, Inc. shall have any right title or interest in or to any intellectual property made or conceived or reduced to practice, in whole or in part by any of the above mentioned persons and that neither company shall ever bring a claim to any such intellectual property in the future; (d) neither the Company nor any current or former employee or consultant of Panorama Research, Inc. or PanResearch, Inc. (including without limitation Dr. James W. Lerrick, Dr. Robert F. Balint, Dr. Jeng Her, David Martinez, and Dr. Yunfei Chen) will be deemed in violation of any existing or future agreement with or right of Panorama Research, Inc. or PanResearch, Inc. by virtue of entering or performing this Agreement or any employment or consulting related agreement with Company (or soliciting or hiring employees or consultants of Panorama Research, Inc. or PanResearch, Inc.), all of which will take precedence over their agreements with Panorama Research, Inc. and/or PanResearch, Inc.; and (e) although Panorama Research, Inc. and/or Pan Research, Inc. has advanced and/or may advance certain funds to Company to allow the Company to pay certain expenses, fees, compensation, etc. owed by the Company in connection with the Technology, the Intellectual Property, the above mentioned persons, and/or other employees/consultants of the Company (including but not limited to Bo Yu and Mark Baer), neither such amounts, nor any other payment or action, entitles Panorama Research, Inc. and/or Pan Research, Inc. to any intellectual property or other rights or licenses).

4. Confidential Information

4.1 Each Assignor agrees that it will not use or disclose anything assigned to the Company hereunder or any other technical or business information or plans of the Company, except to the extent Assignor(s) (i) can document that it is generally available (through no fault of Assignor(s)) for use and disclosure by the public without any charge, license or restriction, or (ii) Assignor has signed a Proprietary Information and Inventions Agreement with the Company and such use or disclosure is permitted under the Proprietary Information and Inventions Agreement signed by and between the Assignor and the Company of even date herewith. Each Assignor recognizes and agrees that there is no adequate remedy at law for a breach of this Section 4, that such a breach would irreparably harm the Company and that the Company is entitled to equitable relief (including, without limitations, injunctions) with respect to any such breach or potential breach in addition to any other remedies and without any requirement to post bond.

5. Warranty

Each Assignor represents and warrants to the Company that the Assignor (i) was the sole owner (other than the Company or other Assignors) of all rights, title and interest in the Intellectual Property and the Technology transferred herein (ii) has not assigned, transferred, licensed, pledged or otherwise encumbered any Intellectual Property or the Technology or agreed to do so (except to the Company or other Assignors prior to the Effective Date), (iii) has full power and authority to enter into this Agreement and to make the assignment as provided in Section 1, (iv) is not aware of any violation, infringement or misappropriation of any third party's rights (or any claim thereof) by the Intellectual Property or the Technology, (v) was not acting within the scope of employment by any third party (except any of the Assignors or the Company) when conceiving, creating or otherwise performing any activity with respect to anything purportedly assigned in Section 1, (iv) has not violated (or failed to take all action necessary to secure any rights under) any agreement or commitment to any third party or any law or regulation and (v) is not aware of any questions or challenges with respect to the patentability or validity of any claims of any existing patents or patent applications relating to the Intellectual Property.

6. Miscellaneous

This Agreement is not assignable or transferable by Assignor(s) without the prior written consent of the Company; any attempt to do so shall be void. Company may freely assign this Agreement. Any notice, report, approval or consent required or permitted hereunder shall be in writing and will be deemed to have been duly given if delivered personally or mailed by first-class, registered or certified U.S. mail, postage prepaid to the respective addresses of the parties as set below (or such other address as a party may designate by ten (10) days notice). No failure to exercise, and no delay in exercising, on the part of either party, any privilege, any power or any rights hereunder will operate as a waiver thereof, nor will any single or partial exercise of any right or power hereunder preclude further exercise of any other right hereunder. If any provision of this Agreement shall be adjudged by any court of competent jurisdiction to be unenforceable or invalid, that provision shall be limited or eliminated to the minimum extent necessary so that this Agreement shall otherwise remain in full force and effect and enforceable.

This Agreement shall be deemed to have been made in, and shall be construed pursuant to the laws of the State of California and the United States without regard to conflicts of laws provisions thereof. The prevailing party in any action to enforce this Agreement shall be entitled to recover costs and expenses including, without limitation, attorneys' fees. The terms of this Agreement are confidential to the Company and no press release or other written or oral disclosure of any nature regarding the compensation terms of this Agreement shall be made by Assignor(s) without the Company's prior written approval; however, approval for such disclosure shall be deemed given to the extent such disclosure is required to comply with governmental rules. Also, in order to maintain confidentiality for each Assignor, no Assignor shall be entitled to information regarding the compensation provided to any other Assignor. Any waivers or amendments shall be effective only if made in writing and signed by a representative of the respective parties authorized to bind the parties. Both parties agree that this Agreement is the complete and exclusive statement of the mutual understanding of the parties and supersedes and cancels all previous written and oral agreements and communications relating to the subject matter of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement on the day
and year first indicated above.

HORIZON BIOTECHNOLOGIES
INCORPORATED

By:

Robert Balint

Name: ROBERT BALINT

Title: SECRETARY

Address: 2462 NYANDOYTE ST.
MOUNTAIN VIEW, CA 94043

Compensation for Dr. Robert F. Balint: 752,429 shares of Common Stock of the
Company

DR. ROBERT F. BALINT

By: Dr. Robert F. Balint
Name: ROBERT F. BALINT
Title: SECRETARY
Address: 2462 MARYANDBOTTE ST.
MOUNTAINVIEW, CA 94043

Compensation for Dr. James W. Lerrick, Panorama Research, Inc., and Pan Research, Inc. (the "LWR/PRI Assignors") is as follows and is to be allocated and distributed between them as indicated in written notice to the Company to be received from Dr. James W. Lerrick, who is hereby appointed as the sole representative of the LWR/PRI Assignors for any matter relating to such allocation or distribution (Company may fully rely on such notice without inquiry and regardless of any contrary notice purportedly on behalf of any LWR/PRI Assignor or, at its sole discretion, may withhold the consideration until any dispute is resolved; Company will have no other obligation to any LWR/PRI Assignor with respect to allocation or distribution among LWR/PRI Assignors, if any, and such allocation and distribution is subject to compliance with securities laws and execution of customary documentation required by the Company): 451,457 Shares of Common Stock of Company.

DR. JAMES W. LARRICK

By: James W. Lerrick
Name: James W. Lerrick
Title: CEO
Address: _____

PANORAMA RESEARCH, INC.

By: James W. Lerrick
Name: James W. Lerrick
Title: CEO
Address: 2462 WYANDOTTE ST.
MOUNTAIN VIEW, CA. 94031

PAN RESEARCH, INC.

By: James W. Lerrick
Name: James W. Lerrick
Title: CEO
Address: 2462 WYANDOTTE ST.
MOUNTAIN VIEW, CA. 94031

EXHIBIT A

TO TECHNOLOGY ASSIGNMENT AGREEMENT

"Technology" shall include any of the following subject matter:

- (a) the fields of antibody engineering, antibody screening, antibody affinity maturation, antibody-antigen interactions;
- (b) the fields of protein-protein interactions, protein-small molecule interactions, or any other protein engineering or protein detection systems.
- (c) any subject matter contained in any of the following patent applications:

Title	Inventors	Prov.#	US App#	PCT#
Methods for Optimization of Heterologous Protein Expression	R. Balint	60/121,020	09/510,097	US00/08477
Interaction-Activated Proteins	R. Balint and J-H Her	60/124,339	09/526,106	US00/07108
Interaction-Activated Circular Permutations	R. Balint and J-H Her	60/175,968	09/764,163	US01/01651
Affinity Maturation by Competitive Selection	R. Balint, J-H Her, J Lerrick	60/245,039		

- (d) any subject matter covered in the following written disclosures on file with patent attorneys at Townsend, Townsend & Crew and/or Rae-Venter Law Group:

- (i) "Target-Activatable Enzymes", by R. Balint and J-H Her.
- (ii) "Methods for Optimizing Fragment Complementation Systems", by R. Balint and J-H Her.
- (iii) "Simplex and Multiplex Antibody Selection Methods", by R. Balint and J-H Her.
- (iv) "Epitope-Specific Antibody Selection", by R. Balint and J-H Her.
- (v) "Molecular Switch Technologies", by R. Balint.
- (vi) "Enzyme Engineering Technologies", by R. Balint.

Specifically excluded should be information or know-how relating specifically to, and limited to, the production of antibodies in plants (which is the field of business of Planet Biotechnologies, Inc.).

EXHIBIT B

CANCELLATION AGREEMENT

The following confirms and memorializes an agreement between Panorama Research, Inc., a California corporation ("Panorama") and PanResearch Inc. ("PanResearch") and Dr. Robert F. Balint and Dr. Yunfei Chen, which is effective as of March 31, 2001 (the "Effective Date"):

1. Panorama and PanResearch and Dr. Robert F. Balint acknowledge and agree that the agreement between the parties dated January 25, 2000 has been terminated as of March 31 2001. Dr. Robert F. Balint and Panorama and Pan Research acknowledge and agree that as of March 31, 2001 Dr. Robert F. Balint is an employee of Horizon BioTechnologies Incorporated and that as of such date Panorama has no right title and interest in any intellectual property made or conceived or reduced to practice, in whole or in part, by Dr. Robert F. Balint or any subordinates in or employees of the BioEngineering Group of Panorama.
2. The Dr. Yunfei Chen and Panorama acknowledge and agree that the agreement between Panorama and Dr. Yunfei Chen dated May 22, 2000 has been terminated as of March 31 2001. Dr. YunFei Chen and Panorama acknowledge and agree that as of March 31, 2001 Dr. Yunfei Chen is an employee of Horizon BioTechnologies Incorporated and that as of such date Panorama has no right title and interest in any intellectual property made or conceived or reduced to practice, in whole or in part, by Dr. Yunfei Chen.

March 31, 2001

Dr. Robert F. Balint

Signature

Name (Printed)

Dr. YunFei Chen

Signature

Name (Printed)

Accepted and Agreed to: Panorama Research, Inc.

By: James W. Lerrick, MD, PhD.

Accepted and Agreed to: PanResearch Inc.

By: James W. Lerrick, MD, PhD.